

GPS on the Web

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This column provides the address and a summary of selected Web sites related to the theory and applications of GPS. Its purpose is to inform the reader about the information, data, and tutorials that are available on-line. The column is compiled by Dr. G. Lachapelle, the University of Calgary. Comments and suggestions are welcome (lachapel@geomatics.ucalgary.ca).

In this column, Web sites describing the International Earth Rotation Service, the U.S. Federal Aviation Administration GPS library on-line, the University NAVSTAR Consortium, the International GPS Service, and the Department of Geomatics Engineering of the University of Calgary are described.

<http://hpiers.obspm.fr/>

This is the Web site of the International Earth Rotation Service (IERS) Central Bureau, hosted by the Observatoire de Paris. The IERS, established in 1987 by the International Astronomical Union and the International Union of Geodesy and Geophysics, provides refer-

ence values for Earth orientation parameters, including the International Terrestrial Reference Frame to which the GPS reference is closely tied. The site includes information about earth orientation parameters, celestial and terrestrial reference frames, and other IERS publications and products. A report that summarizes the recent activities of IERS can be found at **http://www.gfy.ku.dk/~iag/Travaux/sec5_iers.htm**.

<http://gps.faa.gov/Library/Documents/documents.htm>

This U.S. Federal Aviation Administration site consists of a library of technical reports pertaining to the use of GPS in aviation, including numerous documents on the Wide Area Augmentation System (WAAS) and the Local Area Augmentation System (LAAS). A "Hot Topics" series includes documents on L5 (e.g., Description of the Concept of Operations and Benefits of L5) and on frequency spectrum protection issues (e.g., Protection of Radio Spectrum Supporting the Global Navigation Satellite System Fact Sheet, GNSS Frequency Spectrum Protection Working Paper Presented at ICAO 32nd Assembly in October 1998).

<http://www.unavco.ucar.edu>

The University NAVSTAR Consortium (UNAVCO) supports research into Earth processes and hazards via high-precision geodesy using GPS. A description of the various

activities of the consortium is given on this site, including the Global Velocity and Strain project, the GPS Equipment Support service, and the Development and Testing program. Various software tools for GPS data management tasks, ranging from receiver downloading or data logging to data visualization, are also available. GPS data collected during various observation campaigns are also available.

<http://igsch.jpl.nasa.gov/>

This site is maintained by the International GPS Service (IGS), which, in cooperation with other agencies, provides GPS orbits, tracking data, and other high-quality GPS data and data products on-line in near real time to meet the objectives of a wide range of scientific and engineering applications and studies. The site also includes an extensive list of IGS reports and workshop proceedings going back to 1993.

<http://www.geomatics.ucalgary.ca/Publications.html>

This University of Calgary site contains M.Sc. and Ph.D. theses written by Geomatics Engineering graduate students since late 1999. The full theses are available in pdf format. Another portion of the Geomatics Engineering website, **<http://www.geomatics.ucalgary.ca/GPSRes/GPSResIndex.html>**, contains selected summaries and full papers of GPS research conducted in the Department. ■